

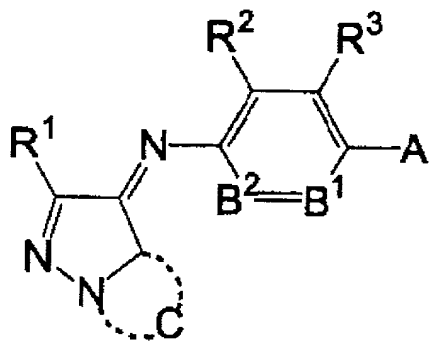
WHAT IS CLAIMED IS:

1. An ink for ink-jet comprising:

a coloring composition containing coloring particulates dispersed in a water based medium, the coloring particulates containing an oil soluble dye and an oil soluble polymer; and wherein the coloring composition has wavelength of maximum absorption ( $\lambda_{\max}(\text{nm})$ ) in the wavelength range from 510 to 560 nm and when the absorbance at the wavelength of maximum absorption ( $\lambda_{\max}(\text{nm})$ ) is regarded as 1, the absorbance at a wavelength ( $\lambda_{\max} + 75 (\text{nm})$ ) is no more than 0.2 and the absorbance at a wavelength ( $\lambda_{\max} - 75 (\text{nm})$ ) is no more than 0.4.

2. The ink for ink-jet according to claim 1, wherein the oil soluble dye is represented by the formula (I):

Formula (I)



wherein R<sup>1</sup> represents a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, -OR<sup>11</sup>, -SR<sup>12</sup>, -

$\text{CO}_2\text{R}^{13}$ ,  $-\text{OCOR}^{14}$ ,  $-\text{NR}^{15}\text{R}^{16}$ ,  $-\text{CONR}^{17}\text{R}^{18}$ ,  $-\text{SO}_2\text{R}^{19}$ ,  $-\text{SO}_2\text{NR}^{20}\text{R}^{21}$ ,  $-\text{NR}^{22}\text{CONR}^{23}\text{R}^{24}$ ,  $-\text{NR}^{25}\text{CO}_2\text{R}^{26}$ ,  $-\text{COR}^{27}$ ,  $-\text{NR}^{28}\text{COR}^{29}$ , or  $-\text{NR}^{30}\text{SO}_2\text{R}^{31}$ ; and  $\text{R}^{11}$ ,  $\text{R}^{12}$ ,  $\text{R}^{13}$ ,  $\text{R}^{14}$ ,  $\text{R}^{15}$ ,  $\text{R}^{16}$ ,  $\text{R}^{17}$ ,  $\text{R}^{18}$ ,  $\text{R}^{19}$ ,  $\text{R}^{20}$ ,  $\text{R}^{21}$ ,  $\text{R}^{22}$ ,  $\text{R}^{23}$ ,  $\text{R}^{24}$ ,  $\text{R}^{25}$ ,  $\text{R}^{26}$ ,  $\text{R}^{27}$ ,  $\text{R}^{28}$ ,  $\text{R}^{29}$ ,  $\text{R}^{30}$  and  $\text{R}^{31}$  each independently represents a hydrogen atom, an aliphatic group, or an aromatic group;

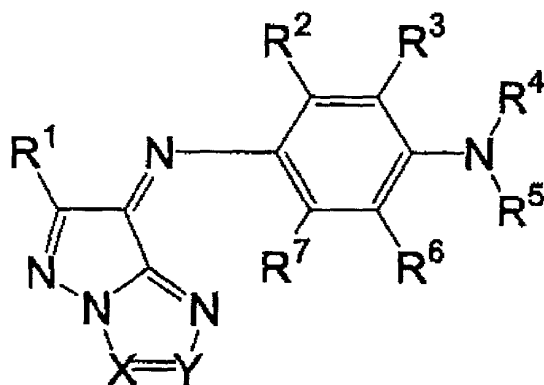
A represents  $-\text{NR}^4\text{R}^5$  or a hydroxyl group;  $\text{R}^4$  and  $\text{R}^5$  each independently represents a hydrogen atom, an aliphatic group, an aromatic group or a heterocyclic group;  $\text{B}^1$  represents  $=\text{C}(\text{R}^6)-$  or  $=\text{N}-$ ;  $\text{B}^2$  represents  $-\text{C}(\text{R}^7)=$  or  $-\text{N}=$ ;  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^6$  and  $\text{R}^7$  each independently represents a hydrogen atom, a halogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-\text{OR}^{51}$ ,  $-\text{SR}^{52}$ ,  $-\text{CO}_2\text{R}^{53}$ ,  $-\text{OCOR}^{54}$ ,  $-\text{NR}^{55}\text{R}^{56}$ ,  $-\text{CONR}^{57}\text{R}^{58}$ ,  $-\text{SO}_2\text{R}^{59}$ ,  $\text{SO}_2\text{NR}^{60}\text{R}^{61}$ ,  $-\text{NR}^{62}\text{CONR}^{63}\text{R}^{64}$ ,  $-\text{NR}^{65}\text{CO}_2\text{R}^{66}$ ,  $-\text{COR}^{67}$ ,  $-\text{NR}^{68}\text{COR}^{69}$  or  $-\text{NR}^{70}\text{SO}_2\text{R}^{71}$ ;  $\text{R}^{51}$ ,  $\text{R}^{52}$ ,  $\text{R}^{53}$ ,  $\text{R}^{54}$ ,  $\text{R}^{55}$ ,  $\text{R}^{56}$ ,  $\text{R}^{57}$ ,  $\text{R}^{58}$ ,  $\text{R}^{59}$ ,  $\text{R}^{60}$ ,  $\text{R}^{61}$ ,  $\text{R}^{62}$ ,  $\text{R}^{63}$ ,  $\text{R}^{64}$ ,  $\text{R}^{65}$ ,  $\text{R}^{66}$ ,  $\text{R}^{67}$ ,  $\text{R}^{68}$ ,  $\text{R}^{69}$ ,  $\text{R}^{70}$  and  $\text{R}^{71}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group;  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ ,  $\text{R}^5$  and  $\text{R}^6$ , or  $\text{R}^6$  and  $\text{R}^7$  may be bonded to each other to form a ring;

C forms a 5- or 6-membered nitrogen-containing heterocycle, the heterocycle being substitutable with at least one substituent selected from an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-\text{OR}^{81}$ ,  $-\text{SR}^{82}$ ,  $-\text{CO}_2\text{R}^{83}$ ,  $-\text{OCOR}^{84}$ ,  $-\text{NR}^{85}\text{R}^{86}$ ,  $-\text{CONR}^{87}\text{R}^{88}$ ,  $-\text{SO}_2\text{R}^{89}$ ,  $\text{SO}_2\text{NR}^{90}\text{R}^{91}$ ,  $-\text{NR}^{92}\text{CONR}^{93}\text{R}^{94}$ ,  $-\text{NR}^{95}\text{CO}_2\text{R}^{96}$ ,  $-\text{COR}^{97}$ ,  $-\text{NR}^{98}\text{COR}^{99}$ , and  $-\text{NR}^{100}\text{SO}_2\text{R}^{101}$ ; the substituent(s) may further

have one or more substituents; the nitrogen-containing heterocycle may be combined with another ring to form a condensed ring; and  $R^{81}, R^{82}, R^{83}, R^{84}, R^{85}, R^{86}, R^{87}, R^{88}, R^{89}, R^{90}, R^{91}, R^{92}, R^{93}, R^{94}, R^{95}, R^{96}, R^{97}, R^{98}, R^{99}, R^{100}$  and  $R^{101}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group.

3. The ink for ink-jet according to claim 1, wherein the oil soluble dye is represented by the following formula (II):

Formula (II)



wherein  $R^1$  represents a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-OR^{11}$ ,  $-SR^{12}$ ,  $-CO_2R^{13}$ ,  $-OCOR^{14}$ ,  $-NR^{15}R^{16}$ ,  $-CONR^{17}R^{18}$ ,  $-SO_2R^{19}$ ,  $-SO_2NR^{20}R^{21}$ ,  $-NR^{22}CONR^{23}R^{24}$ ,  $-NR^{25}CO_2R^{26}$ ,  $-COR^{27}$ ,  $-NR^{28}COR^{29}$ , or  $-NR^{30}SO_2R^{31}$ ;  $R^{11}, R^{12}, R^{13}, R^{14}, R^{15}, R^{16}, R^{17}, R^{18}, R^{19}, R^{20}, R^{21}, R^{22}, R^{23}, R^{24}, R^{25}, R^{26}, R^{27}, R^{28}, R^{29}, R^{30}$  and  $R^{31}$  each independently represents a hydrogen atom, an aliphatic group, or an aromatic group;

$R^2, R^3, R^6$  and  $R^7$  each independently represents a hydrogen

atom, a halogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-\text{OR}^{51}$ ,  $-\text{SR}^{52}$ ,  $-\text{CO}_2\text{R}^{53}$ ,  $-\text{OCOR}^{54}$ ,  $-\text{NR}^{55}\text{R}^{56}$ ,  $-\text{CONR}^{57}\text{R}^{58}$ ,  $-\text{SO}_2\text{R}^{59}$ ,  $\text{SO}_2\text{NR}^{60}\text{R}^{61}$ ,  $-\text{NR}^{62}\text{CONR}^{63}\text{R}^{64}$ ,  $-\text{NR}^{65}\text{CO}_2\text{R}^{66}$ ,  $-\text{COR}^{67}$ ,  $-\text{NR}^{68}\text{COR}^{69}$  or  $-\text{NR}^{70}\text{SO}_2\text{R}^{71}$ ;  $\text{R}^{51}$ ,  $\text{R}^{52}$ ,  $\text{R}^{53}$ ,  $\text{R}^{54}$ ,  $\text{R}^{55}$ ,  $\text{R}^{56}$ ,  $\text{R}^{57}$ ,  $\text{R}^{58}$ ,  $\text{R}^{59}$ ,  $\text{R}^{60}$ ,  $\text{R}^{61}$ ,  $\text{R}^{62}$ ,  $\text{R}^{63}$ ,  $\text{R}^{64}$ ,  $\text{R}^{65}$ ,  $\text{R}^{66}$ ,  $\text{R}^{67}$ ,  $\text{R}^{68}$ ,  $\text{R}^{69}$ ,  $\text{R}^{70}$  and  $\text{R}^{71}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group;

$\text{R}^4$  and  $\text{R}^5$  each independently represents a hydrogen atom, an aliphatic group, an aromatic group, or a heterocyclic group; and

X and Y each represents  $-\text{C}(\text{R}^8)=$  or  $-\text{N}=$ ;  $\text{R}^8$  is a hydrogen atom, an aliphatic group or an aromatic group; either one of X and Y necessarily represents  $-\text{N}=$ , and X and Y do not represent  $-\text{N}=$  at the same time.

4. The ink for ink-jet according to claim 3, wherein X represents  $-\text{N}=$ , and Y represents  $-\text{C}(\text{R}^8)=$ .

5. The ink for ink-jet according to claim 1, wherein in the coloring particulates, the oil soluble dye dispersed in the oil soluble polymer.

6. The ink for ink-jet according to claim 1, wherein the coloring particulates are obtained by emulsifying and making into fine particles an organic solvent which includes the oil soluble polymer and the oil soluble dye, by one of adding water to the organic solvent, and adding the organic solvent into water.

7. The ink for ink-jet according to claim 1, wherein the oil

soluble polymer is a vinyl polymer.

8. The ink for ink-jet according to claim 7, wherein the vinyl polymer has at least one of a carboxyl groups and a sulfonic acid groups as an ionic groups.

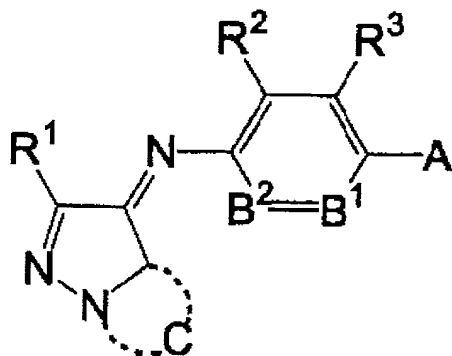
9. The ink for ink-jet according to claim 8, wherein the ionic group of the vinyl polymer is a carboxyl group.

10. The ink for ink-jet according to claim 7, wherein the vinyl polymer has ionic groups in an amount of from 0.1 to 3.0 mmol/g.

11. An ink for ink-jet comprising:

a coloring composition containing coloring particulates dispersed in a water based medium, the coloring particulates containing an oil soluble dye represented by the following formula (I) and a vinyl polymer having at least one of carboxyl groups and sulfonic acid groups as ionic groups:

Formula (I)



wherein R<sup>1</sup> represents a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, -OR<sup>11</sup>, -SR<sup>12</sup>, -

$\text{CO}_2\text{R}^{13}$ ,  $-\text{OCOR}^{14}$ ,  $-\text{NR}^{15}\text{R}^{16}$ ,  $-\text{CONR}^{17}\text{R}^{18}$ ,  $-\text{SO}_2\text{R}^{19}$ ,  $-\text{SO}_2\text{NR}^{20}\text{R}^{21}$ ,  $-\text{NR}^{22}\text{CONR}^{23}\text{R}^{24}$ ,  $-\text{NR}^{25}\text{CO}_2\text{R}^{26}$ ,  $-\text{COR}^{27}$ ,  $-\text{NR}^{28}\text{COR}^{29}$ , or  $-\text{NR}^{30}\text{SO}_2\text{R}^{31}$ ; and  $\text{R}^{11}$ ,  $\text{R}^{12}$ ,  $\text{R}^{13}$ ,  $\text{R}^{14}$ ,  $\text{R}^{15}$ ,  $\text{R}^{16}$ ,  $\text{R}^{17}$ ,  $\text{R}^{18}$ ,  $\text{R}^{19}$ ,  $\text{R}^{20}$ ,  $\text{R}^{21}$ ,  $\text{R}^{22}$ ,  $\text{R}^{23}$ ,  $\text{R}^{24}$ ,  $\text{R}^{25}$ ,  $\text{R}^{26}$ ,  $\text{R}^{27}$ ,  $\text{R}^{28}$ ,  $\text{R}^{29}$ ,  $\text{R}^{30}$  and  $\text{R}^{31}$  each independently represents a hydrogen atom, an aliphatic group, or an aromatic group;

A represents  $-\text{NR}^4\text{R}^5$  or a hydroxyl group;  $\text{R}^4$  and  $\text{R}^5$  each independently represents a hydrogen atom, an aliphatic group, an aromatic group or a heterocyclic group;  $\text{B}^1$  represents  $=\text{C}(\text{R}^6)-$  or  $=\text{N}-$ ;  $\text{B}^2$  represents  $-\text{C}(\text{R}^7)=$  or  $-\text{N}=$ ;  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^6$  and  $\text{R}^7$  each independently represents a hydrogen atom, a halogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-\text{OR}^{51}$ ,  $-\text{SR}^{52}$ ,  $-\text{CO}_2\text{R}^{53}$ ,  $-\text{OCOR}^{54}$ ,  $-\text{NR}^{55}\text{R}^{56}$ ,  $-\text{CONR}^{57}\text{R}^{58}$ ,  $-\text{SO}_2\text{R}^{59}$ ,  $\text{SO}_2\text{NR}^{60}\text{R}^{61}$ ,  $-\text{NR}^{62}\text{CONR}^{63}\text{R}^{64}$ ,  $-\text{NR}^{65}\text{CO}_2\text{R}^{66}$ ,  $-\text{COR}^{67}$ ,  $-\text{NR}^{68}\text{COR}^{69}$  or  $-\text{NR}^{70}\text{SO}_2\text{R}^{71}$ ;  $\text{R}^{51}$ ,  $\text{R}^{52}$ ,  $\text{R}^{53}$ ,  $\text{R}^{54}$ ,  $\text{R}^{55}$ ,  $\text{R}^{56}$ ,  $\text{R}^{57}$ ,  $\text{R}^{58}$ ,  $\text{R}^{59}$ ,  $\text{R}^{60}$ ,  $\text{R}^{61}$ ,  $\text{R}^{62}$ ,  $\text{R}^{63}$ ,  $\text{R}^{64}$ ,  $\text{R}^{65}$ ,  $\text{R}^{66}$ ,  $\text{R}^{67}$ ,  $\text{R}^{68}$ ,  $\text{R}^{69}$ ,  $\text{R}^{70}$  and  $\text{R}^{71}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group;  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ ,  $\text{R}^5$  and  $\text{R}^6$ , or  $\text{R}^6$  and  $\text{R}^7$  may be bonded to each other to form a ring;

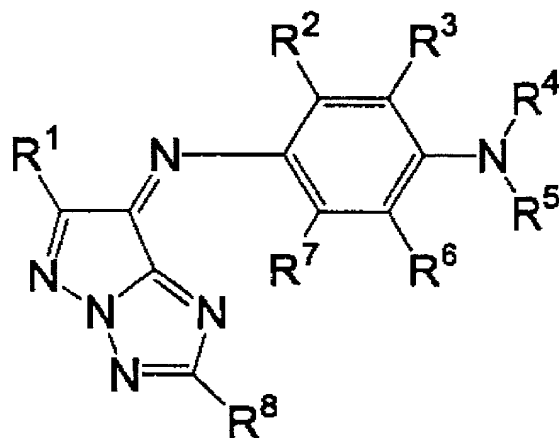
C forms a 5- or 6-membered nitrogen-containing heterocycle; this heterocycle may be substituted with at least one substituent selected from an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-\text{OR}^{81}$ ,  $-\text{SR}^{82}$ ,  $-\text{CO}_2\text{R}^{83}$ ,  $-\text{OCOR}^{84}$ ,  $-\text{NR}^{85}\text{R}^{86}$ ,  $-\text{CONR}^{87}\text{R}^{88}$ ,  $-\text{SO}_2\text{R}^{89}$ ,  $\text{SO}_2\text{NR}^{90}\text{R}^{91}$ ,  $-\text{NR}^{92}\text{CONR}^{93}\text{R}^{94}$ ,  $-\text{NR}^{95}\text{CO}_2\text{R}^{96}$ ,  $-\text{COR}^{97}$ ,  $-\text{NR}^{98}\text{COR}^{99}$ , and  $-\text{NR}^{100}\text{SO}_2\text{R}^{101}$ ; the substituent(s) may further

have one or more substituents; the nitrogen-containing heterocycle may be combined with another ring to form a condensed ring; and  $R^{81}, R^{82}, R^{83}, R^{84}, R^{85}, R^{86}, R^{87}, R^{88}, R^{89}, R^{90}, R^{91}, R^{92}, R^{93}, R^{94}, R^{95}, R^{96}, R^{97}, R^{98}, R^{99}, R^{100}$  and  $R^{101}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group.

12. The ink for ink-jet according to claim 11, wherein the vinyl polymer has ionic groups in an amount of from 0.1 to 3.0 mmol/g.

13. An ink for ink-jet comprising:  
a coloring composition dispersed in a water based medium, containing coloring particulates containing an oil soluble dye represented by the following formula (III) and an oil soluble polymer:

Formula (III)



wherein  $R^1$  represents a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-OR^{11}$ ,  $-SR^{12}$ ,  $-CO_2R^{13}$ ,  $-OCOR^{14}$ ,  $-NR^{15}R^{16}$ ,  $-CONR^{17}R^{18}$ ,  $-SO_2R^{19}$ ,  $-SO_2NR^{20}R^{21}$ , -

$\text{NR}^{22}\text{CONR}^{23}\text{R}^{24}$ ,  $-\text{NR}^{25}\text{CO}_2\text{R}^{26}$ ,  $-\text{COR}^{27}$ ,  $-\text{NR}^{28}\text{COR}^{29}$ , or -  
 $\text{NR}^{30}\text{SO}_2\text{R}^{31}$ ; and  $\text{R}^{11}$ ,  $\text{R}^{12}$ ,  $\text{R}^{13}$ ,  $\text{R}^{14}$ ,  $\text{R}^{15}$ ,  $\text{R}^{16}$ ,  $\text{R}^{17}$ ,  $\text{R}^{18}$ ,  $\text{R}^{19}$ ,  $\text{R}^{20}$ ,  $\text{R}^{21}$ ,  $\text{R}^{22}$ ,  $\text{R}^{23}$ ,  
 $\text{R}^{24}$ ,  $\text{R}^{25}$ ,  $\text{R}^{26}$ ,  $\text{R}^{27}$ ,  $\text{R}^{28}$ ,  $\text{R}^{29}$ ,  $\text{R}^{30}$  and  $\text{R}^{31}$  each independently represents a  
hydrogen atom, an aliphatic group, or an aromatic group;

$\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^6$  and  $\text{R}^7$  each independently represents a hydrogen  
atom, a halogen atom, an aliphatic group, an aromatic group, a  
heterocyclic group, a cyano group,  $-\text{OR}^{51}$ ,  $-\text{SR}^{52}$ ,  $-\text{CO}_2\text{R}^{53}$ ,  $-\text{OCOR}^{54}$ , -  
 $\text{NR}^{55}\text{R}^{56}$ ,  $-\text{CONR}^{57}\text{R}^{58}$ ,  $-\text{SO}_2\text{R}^{59}$ ,  $\text{SO}_2\text{NR}^{60}\text{R}^{61}$ ,  $-\text{NR}^{62}\text{CONR}^{63}\text{R}^{64}$ , -  
 $\text{NR}^{65}\text{CO}_2\text{R}^{66}$ ,  $-\text{COR}^{67}$ ,  $-\text{NR}^{68}\text{COR}^{69}$  or  $-\text{NR}^{70}\text{SO}_2\text{R}^{71}$ ;  $\text{R}^{51}$ ,  $\text{R}^{52}$ ,  $\text{R}^{53}$ ,  $\text{R}^{54}$ ,  $\text{R}^{55}$ ,  
 $\text{R}^{56}$ ,  $\text{R}^{57}$ ,  $\text{R}^{58}$ ,  $\text{R}^{59}$ ,  $\text{R}^{60}$ ,  $\text{R}^{61}$ ,  $\text{R}^{62}$ ,  $\text{R}^{63}$ ,  $\text{R}^{64}$ ,  $\text{R}^{65}$ ,  $\text{R}^{66}$ ,  $\text{R}^{67}$ ,  $\text{R}^{68}$ ,  $\text{R}^{69}$ ,  $\text{R}^{70}$  and  $\text{R}^{71}$   
each independently represents a hydrogen atom, an aliphatic group  
or an aromatic group;

$\text{R}^4$  and  $\text{R}^5$  each independently represents a hydrogen atom, an  
aliphatic group, an aromatic group or a heterocyclic ring; and

$\text{R}^8$  represents a hydrogen atom, an aliphatic group or an  
aromatic group.

14. The ink for ink-jet according to claim 13, wherein the oil  
soluble polymer is a vinyl polymer having at least one of carboxyl  
groups and sulfonic acid groups as ionic groups.

15. A coloring composition comprising:

coloring particulates containing an oil soluble dye and an oil  
soluble polymer, said coloring particulates being dispersed in an  
aqueous medium; and wherein the coloring composition has  
wavelength of maximum absorption ( $\lambda_{\text{max}}(\text{nm})$ ) in the wavelength

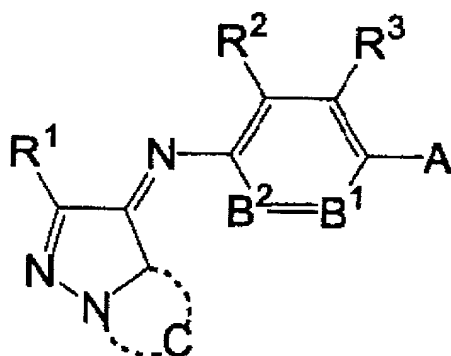


range from 510 to 560 nm and when the absorbance at the wavelength of maximum absorption ( $\lambda_{\text{max}}(\text{nm})$ ) is regarded as 1, the absorbance at a wavelength ( $\lambda_{\text{max}} + 75 (\text{nm})$ ) is no more than 0.2 and the absorbance at a wavelength ( $\lambda_{\text{max}} - 75 (\text{nm})$ ) is no more than 0.4.

16. A coloring composition comprising:

coloring particulates containing an oil soluble dye represented by the following formula (I) and a vinyl polymer having at least one of carboxyl groups and sulfonic acid groups as ionic groups, said coloring particulates being dispersed in an aqueous medium:

Formula (I)



wherein R<sup>1</sup> represents a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, -OR<sup>11</sup>, -SR<sup>12</sup>, -CO<sub>2</sub>R<sup>13</sup>, -OCOR<sup>14</sup>, -NR<sup>15</sup>R<sup>16</sup>, -CONR<sup>17</sup>R<sup>18</sup>, -SO<sub>2</sub>R<sup>19</sup>, -SO<sub>2</sub>NR<sup>20</sup>R<sup>21</sup>, -NR<sup>22</sup>CONR<sup>23</sup>R<sup>24</sup>, -NR<sup>25</sup>CO<sub>2</sub>R<sup>26</sup>, -COR<sup>27</sup>, -NR<sup>28</sup>COR<sup>29</sup>, or -NR<sup>30</sup>SO<sub>2</sub>R<sup>31</sup>; and R<sup>11</sup>, R<sup>12</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>19</sup>, R<sup>20</sup>, R<sup>21</sup>, R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup>, R<sup>26</sup>, R<sup>27</sup>, R<sup>28</sup>, R<sup>29</sup>, R<sup>30</sup> and R<sup>31</sup> each independently represents a hydrogen atom, an aliphatic group, or an aromatic group;

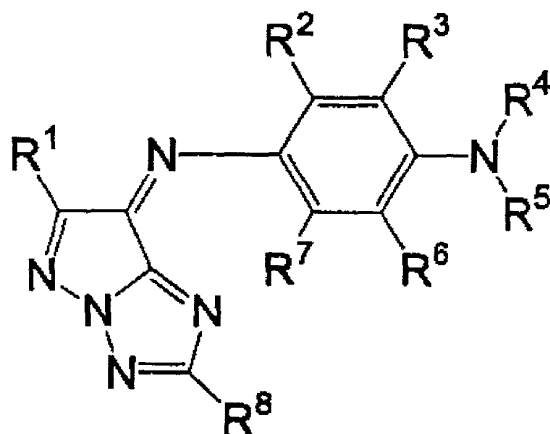
A represents  $-NR^4R^5$  or a hydroxyl group;  $R^4$  and  $R^5$  each independently represents a hydrogen atom, an aliphatic group, an aromatic group or a heterocyclic group;  $B^1$  represents  $=C(R^6)-$  or  $=N-$ ;  $B^2$  represents  $-C(R^7)=$  or  $-N=$ ;  $R^2$ ,  $R^3$ ,  $R^6$  and  $R^7$  each independently represents a hydrogen atom, a halogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-OR^{51}$ ,  $-SR^{52}$ ,  $-CO_2R^{53}$ ,  $-OCOR^{54}$ ,  $-NR^{55}R^{56}$ ,  $-CONR^{57}R^{58}$ ,  $-SO_2R^{59}$ ,  $SO_2NR^{60}R^{61}$ ,  $-NR^{62}CONR^{63}R^{64}$ ,  $-NR^{65}CO_2R^{66}$ ,  $-COR^{67}$ ,  $-NR^{68}COR^{69}$  or  $-NR^{70}SO_2R^{71}$ ;  $R^{51}$ ,  $R^{52}$ ,  $R^{53}$ ,  $R^{54}$ ,  $R^{55}$ ,  $R^{56}$ ,  $R^{57}$ ,  $R^{58}$ ,  $R^{59}$ ,  $R^{60}$ ,  $R^{61}$ ,  $R^{62}$ ,  $R^{63}$ ,  $R^{64}$ ,  $R^{65}$ ,  $R^{66}$ ,  $R^{67}$ ,  $R^{68}$ ,  $R^{69}$ ,  $R^{70}$  and  $R^{71}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group;  $R^2$  and  $R^3$ ,  $R^3$  and  $R^4$ ,  $R^4$  and  $R^5$ ,  $R^5$  and  $R^6$ , or  $R^6$  and  $R^7$  may be bonded to each other to form a ring;

C forms a 5- or 6-membered nitrogen-containing heterocycle; this heterocycle may be substituted with at least one substituent selected from an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-OR^{81}$ ,  $-SR^{82}$ ,  $-CO_2R^{83}$ ,  $-OCOR^{84}$ ,  $-NR^{85}R^{86}$ ,  $-CONR^{87}R^{88}$ ,  $-SO_2R^{89}$ ,  $SO_2NR^{90}R^{91}$ ,  $-NR^{92}CONR^{93}R^{94}$ ,  $-NR^{95}CO_2R^{96}$ ,  $-COR^{97}$ ,  $-NR^{98}COR^{99}$ , and  $-NR^{100}SO_2R^{101}$ ; the substituent(s) may further have one or more substituents; the nitrogen-containing heterocycle may be combined with another ring to form a condensed ring; and  $R^{81}$ ,  $R^{82}$ ,  $R^{83}$ ,  $R^{84}$ ,  $R^{85}$ ,  $R^{86}$ ,  $R^{87}$ ,  $R^{88}$ ,  $R^{89}$ ,  $R^{90}$ ,  $R^{91}$ ,  $R^{92}$ ,  $R^{93}$ ,  $R^{94}$ ,  $R^{95}$ ,  $R^{96}$ ,  $R^{97}$ ,  $R^{98}$ ,  $R^{99}$ ,  $R^{100}$  and  $R^{101}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group.

17. A coloring composition comprising:

coloring particulates containing an oil soluble dye represented by the following formula (III) and an oil soluble polymer, said coloring particulates being dispersed in an aqueous medium:

Formula (III)



wherein R<sup>1</sup> represents a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, -OR<sup>11</sup>, -SR<sup>12</sup>, -CO<sub>2</sub>R<sup>13</sup>, -OCOR<sup>14</sup>, -NR<sup>15</sup>R<sup>16</sup>, -CONR<sup>17</sup>R<sup>18</sup>, -SO<sub>2</sub>R<sup>19</sup>, -SO<sub>2</sub>NR<sup>20</sup>R<sup>21</sup>, -NR<sup>22</sup>CONR<sup>23</sup>R<sup>24</sup>, -NR<sup>25</sup>CO<sub>2</sub>R<sup>26</sup>, -COR<sup>27</sup>, -NR<sup>28</sup>COR<sup>29</sup>, or -NR<sup>30</sup>SO<sub>2</sub>R<sup>31</sup>; and R<sup>11</sup>, R<sup>12</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>19</sup>, R<sup>20</sup>, R<sup>21</sup>, R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup>, R<sup>26</sup>, R<sup>27</sup>, R<sup>28</sup>, R<sup>29</sup>, R<sup>30</sup> and R<sup>31</sup> each independently represents a hydrogen atom, an aliphatic group, or an aromatic group;

R<sup>2</sup>, R<sup>3</sup>, R<sup>6</sup> and R<sup>7</sup> each independently represents a hydrogen atom, a halogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, -OR<sup>51</sup>, -SR<sup>52</sup>, -CO<sub>2</sub>R<sup>53</sup>, -OCOR<sup>54</sup>, -NR<sup>55</sup>R<sup>56</sup>, -CONR<sup>57</sup>R<sup>58</sup>, -SO<sub>2</sub>R<sup>59</sup>, SO<sub>2</sub>NR<sup>60</sup>R<sup>61</sup>, -NR<sup>62</sup>CONR<sup>63</sup>R<sup>64</sup>, -NR<sup>65</sup>CO<sub>2</sub>R<sup>66</sup>, -COR<sup>67</sup>, -NR<sup>68</sup>COR<sup>69</sup> or -NR<sup>70</sup>SO<sub>2</sub>R<sup>71</sup>; R<sup>51</sup>, R<sup>52</sup>, R<sup>53</sup>, R<sup>54</sup>, R<sup>55</sup>,

$R^{56}, R^{57}, R^{58}, R^{59}, R^{60}, R^{61}, R^{62}, R^{63}, R^{64}, R^{65}, R^{66}, R^{67}, R^{68}, R^{69}, R^{70}$  and  $R^{71}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group;

$R^4$  and  $R^5$  each independently represents a hydrogen atom, an aliphatic group, an aromatic group or a heterocyclic ring; and

$R^8$  represents a hydrogen atom, an aliphatic group or an aromatic group.

18. An ink-jet printing process comprising:

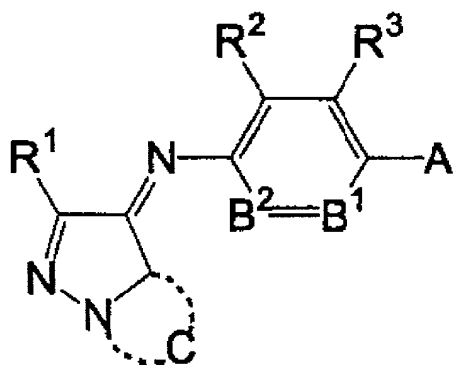
(a) preparing an ink for ink jet, containing coloring composition in which coloring particulates containing an oil soluble dye and an oil soluble polymer are dispersed in an aqueous medium, wherein the coloring composition has wavelength of maximum absorption ( $\lambda_{\max}(\text{nm})$ ) in the wavelength range from 510 to 560 nm and when the absorbance at the wavelength of maximum absorption ( $\lambda_{\max}(\text{nm})$ ) is regarded as 1, the absorbance at a wavelength ( $\lambda_{\max} + 75 (\text{nm})$ ) is no more than 0.2 and the absorbance at a wavelength ( $\lambda_{\max} - 75 (\text{nm})$ ) is no more than 0.4; and

(b) using the ink for recording in an ink-jet printing device.

19. An ink-jet printing process comprising:

(a) preparing an ink for ink jet, containing coloring composition in which coloring particulates containing an oil soluble dye represented by the following formula (I) and a vinyl polymer having at least one of carboxyl groups and sulfonic acid groups as ionic groups, are dispersed in an aqueous medium:

Formula (I)



wherein  $R^1$  represents a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-OR^{11}$ ,  $-SR^{12}$ ,  $-CO_2R^{13}$ ,  $-OCOR^{14}$ ,  $-NR^{15}R^{16}$ ,  $-CONR^{17}R^{18}$ ,  $-SO_2R^{19}$ ,  $-SO_2NR^{20}R^{21}$ ,  $-NR^{22}CONR^{23}R^{24}$ ,  $-NR^{25}CO_2R^{26}$ ,  $-COR^{27}$ ,  $-NR^{28}COR^{29}$ , or  $-NR^{30}SO_2R^{31}$ ; and  $R^{11}$ ,  $R^{12}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$ ,  $R^{18}$ ,  $R^{19}$ ,  $R^{20}$ ,  $R^{21}$ ,  $R^{22}$ ,  $R^{23}$ ,  $R^{24}$ ,  $R^{25}$ ,  $R^{26}$ ,  $R^{27}$ ,  $R^{28}$ ,  $R^{29}$ ,  $R^{30}$  and  $R^{31}$  each independently represents a hydrogen atom, an aliphatic group, or an aromatic group;

A represents  $-NR^4R^5$  or a hydroxyl group;  $R^4$  and  $R^5$  each independently represents a hydrogen atom, an aliphatic group, an aromatic group or a heterocyclic group;  $B^1$  represents  $=C(R^6)-$  or  $=N-$ ;  $B^2$  represents  $-C(R^7)=$  or  $-N=$ ;  $R^2$ ,  $R^3$ ,  $R^6$  and  $R^7$  each independently represents a hydrogen atom, a halogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-OR^{51}$ ,  $-SR^{52}$ ,  $-CO_2R^{53}$ ,  $-OCOR^{54}$ ,  $-NR^{55}R^{56}$ ,  $-CONR^{57}R^{58}$ ,  $-SO_2R^{59}$ ,  $SO_2NR^{60}R^{61}$ ,  $-NR^{62}CONR^{63}R^{64}$ ,  $-NR^{65}CO_2R^{66}$ ,  $-COR^{67}$ ,  $-NR^{68}COR^{69}$  or  $-NR^{70}SO_2R^{71}$ ;  $R^{51}$ ,  $R^{52}$ ,  $R^{53}$ ,  $R^{54}$ ,  $R^{55}$ ,  $R^{56}$ ,  $R^{57}$ ,  $R^{58}$ ,  $R^{59}$ ,  $R^{60}$ ,  $R^{61}$ ,  $R^{62}$ ,  $R^{63}$ ,  $R^{64}$ ,  $R^{65}$ ,  $R^{66}$ ,  $R^{67}$ ,

$R^{68}$ ,  $R^{69}$ ,  $R^{70}$  and  $R^{71}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group;  $R^2$  and  $R^3$ ,  $R^3$  and  $R^4$ ,  $R^4$  and  $R^5$ ,  $R^5$  and  $R^6$ , or  $R^6$  and  $R^7$  may be bonded to each other to form a ring;

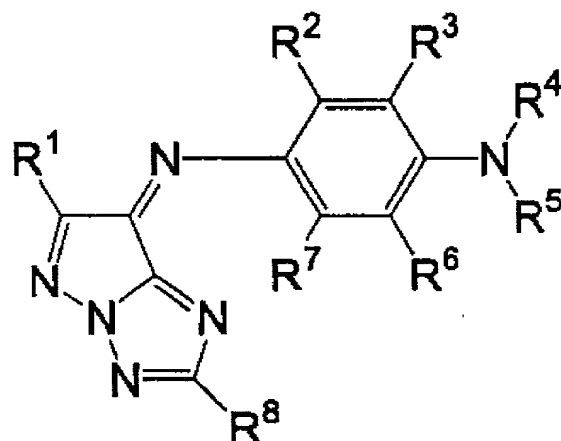
C forms a 5- or 6-membered nitrogen-containing heterocycle; this heterocycle may be substituted with at least one substituent selected from an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-OR^{81}$ ,  $-SR^{82}$ ,  $-CO_2R^{83}$ ,  $-OCOR^{84}$ ,  $-NR^{85}R^{86}$ ,  $-CONR^{87}R^{88}$ ,  $-SO_2R^{89}$ ,  $SO_2NR^{90}R^{91}$ ,  $-NR^{92}CONR^{93}R^{94}$ ,  $-NR^{95}CO_2R^{96}$ ,  $-COR^{97}$ ,  $-NR^{98}COR^{99}$ , and  $-NR^{100}SO_2R^{101}$ ; the substituent(s) may further have one or more substituents; the nitrogen-containing heterocycle may be combined with another ring to form a condensed ring; and  $R^{81}$ ,  $R^{82}$ ,  $R^{83}$ ,  $R^{84}$ ,  $R^{85}$ ,  $R^{86}$ ,  $R^{87}$ ,  $R^{88}$ ,  $R^{89}$ ,  $R^{90}$ ,  $R^{91}$ ,  $R^{92}$ ,  $R^{93}$ ,  $R^{94}$ ,  $R^{95}$ ,  $R^{96}$ ,  $R^{97}$ ,  $R^{98}$ ,  $R^{99}$ ,  $R^{100}$  and  $R^{101}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group, and

(b) using the ink for recording in an ink-jet printing device.

20. An ink-jet printing process comprising:

(a) preparing an ink an ink jet, containing coloring composition in which coloring particulates contain an oil soluble dye represented by the following formula (III) and an oil soluble polymer, said coloring particulates being dispersed in an aqueous medium,

Formula (III)



wherein  $R^1$  represents a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-OR^{11}$ ,  $-SR^{12}$ ,  $-CO_2R^{13}$ ,  $-OCOR^{14}$ ,  $-NR^{15}R^{16}$ ,  $-CONR^{17}R^{18}$ ,  $-SO_2R^{19}$ ,  $-SO_2NR^{20}R^{21}$ ,  $-NR^{22}CONR^{23}R^{24}$ ,  $-NR^{25}CO_2R^{26}$ ,  $-COR^{27}$ ,  $-NR^{28}COR^{29}$ , or  $-NR^{30}SO_2R^{31}$ ; and  $R^{11}$ ,  $R^{12}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$ ,  $R^{18}$ ,  $R^{19}$ ,  $R^{20}$ ,  $R^{21}$ ,  $R^{22}$ ,  $R^{23}$ ,  $R^{24}$ ,  $R^{25}$ ,  $R^{26}$ ,  $R^{27}$ ,  $R^{28}$ ,  $R^{29}$ ,  $R^{30}$  and  $R^{31}$  each independently represents a hydrogen atom, an aliphatic group, or an aromatic group;

$R^2$ ,  $R^3$ ,  $R^6$  and  $R^7$  each independently represents a hydrogen atom, a halogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group,  $-OR^{51}$ ,  $-SR^{52}$ ,  $-CO_2R^{53}$ ,  $-OCOR^{54}$ ,  $-NR^{55}R^{56}$ ,  $-CONR^{57}R^{58}$ ,  $-SO_2R^{59}$ ,  $SO_2NR^{60}R^{61}$ ,  $-NR^{62}CONR^{63}R^{64}$ ,  $-NR^{65}CO_2R^{66}$ ,  $-COR^{67}$ ,  $-NR^{68}COR^{69}$  or  $-NR^{70}SO_2R^{71}$ ;  $R^{51}$ ,  $R^{52}$ ,  $R^{53}$ ,  $R^{54}$ ,  $R^{55}$ ,  $R^{56}$ ,  $R^{57}$ ,  $R^{58}$ ,  $R^{59}$ ,  $R^{60}$ ,  $R^{61}$ ,  $R^{62}$ ,  $R^{63}$ ,  $R^{64}$ ,  $R^{65}$ ,  $R^{66}$ ,  $R^{67}$ ,  $R^{68}$ ,  $R^{69}$ ,  $R^{70}$  and  $R^{71}$  each independently represents a hydrogen atom, an aliphatic group or an aromatic group;

$R^4$  and  $R^5$  each independently represents a hydrogen atom, an

aliphatic group, an aromatic group or a heterocyclic ring; and

$R^8$  represents a hydrogen atom, an aliphatic group or an aromatic group, and

(b) using the ink for recording in an ink-jet printing device.